STATE SAVE-ON-POWER-DOWN USING GMR NON-VOLATILE ELEMENTS

Abstract of the Disclosure

The semiconductor industry seeks to reduce the risk of traditional volatile storage

devices with improved non-volatile storage devices. The increased demand for a significantly

advanced, efficient, and non-volatile data retention technique has driven the development of

integrated giant-magneto-resistive (GMR) structures. The present invention relates to non-

volatile logic state retention devices, such as GMR storage elements, and concerns a save-on-

power-down circuit that may be integrated with conventional semiconductor-based

computing, logic, and memory devices to retain volatile logic states and/or volatile digital

information in a non-volatile manner.

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